# LXXXI. *A Continuation of the Account of the Weather in* Madeira. *By Dr.* Thomas Heberden. *Communicated by Dr.* W. Heberden, *F. R. S.*

Read May 30, 1754.

Madeira, *Anno* 1751.

| | Barometer. | | | | Thermometer. | | |
|---|---|---|---|---|---|---|---|
| | M. H. | G. H. | L. H. | | M. H. | G.H. | L.H. |
| January | 29.775 | 30.1 | 29.45 | | 64.354 | 69 | 62 |
| February | 29.896 | 30.1 | 29.5 | | 64.553 | 68 | 60 |
| March | 30.002 | 30.1 | 29.7 | | 64.967 | 70 | 63 |
| April | 29.97 | 30.1 | 29.85 | | 65.01 | 68 | 63 |
| May | 29.827 | 30.05 | 29.6 | | 66.822 | 70 | 63 |
| June | 30 | 30.05 | 29.8 | L. W. | 70.833 | 76 | 68 |
| July | 29.973 | 30.05 | 29.9 | | 74.161 | 77 | 72 |
| Auguſt | 29.942 | 30.05 | 29.9 | | 75.709 | 78 | 72 |
| September | 29.931 | 30 | 29.8 | | 74.916 | 78 | 73 |
| October | 29.86 | 30.05 | 29.4 | | 72.774 | 76 | 68 |
| November | 29.813 | 30.1 | 9.6 | | 68.533 | 72 | 65 |
| December | 29.807 | 30.1 | 29.3 | | 63.725 | 71 | 62 |
| | | *Anno* 1752. | | | | | |
| January | 29.788 | 30.1 | 29.55 | | 65.254 | 68 | 62 |
| February | 29.866 | 30.15 | 29.7 | | 63.071 | 66 | 60 |
| March | 30.026 | 30.2 | 29.75 | | 66.032 | 68 | 63 |
| April | 22.844 | 30.05 | 29.45 | | 65.683 | 68 | 64 |
| May | 29.987 | 30.15 | 29.8 | | 66.37 | 69 | 64 |
| June | 29.966 | 30.1 | 29.7 | | 70.58 | 74 | 67 |
| July | 29.999 | 30.1 | 29.9 | | 72.962 | 75 | 70 |
| Auguſt | 30.002 | 30.05 | 29.9 | | 73.86 | 76 | 73 |
| September | 30.022 | 30.1 | 29.9 | L. W. | 76.538 | 80 | 74 |
| October | 29.807 | 30.1 | 29.7 | | 73.08 | 78 | 69 |
| November | 29. 51 | 30.05 | 29.75 | L. W. | 68.3 | 73 | 64 |
| December | 30.05 | 30.15 | 29.7 | | 66.354 | 70 | 64 |

## Madeira, *Anno* 1753.

| | Barometer | | | Thermometer. | | |
|---|---|---|---|---|---|---|
| | M. H. | G. H. | L. H. | M. H. | G.H. | L. H. |
| January | 29.904 | 30.15 | 29.6 | 63.129 | 66 | 61 |
| February | 29.933 | 30.15 | 29.6 | 65.946 | 70 | 61 |
| March | 29.943 | 30.15 | 29.5 | 66.967 | 69 | 64 |
| April | 29.921 | 30.1 | 29.7 | 65.316 | 68 | 63 |
| May | 29.896 | 30 | 29.8 | 66.709 | 69 | 65 |
| June | 29.988 | 30.05 | 29.8 | 69.6 | 72 | 68 |

Collecting the reſpective ſums of the daily heights of the inſtruments throughout the year, and extracting the mean altitude, I find,

The mean altitude of the barometer for each day, is . . . . . 29.915 inches.

Of the thermometer, 68°.918.

The greateſt barometrical variation, during four years and four months, has been 9 tenths of an inch, *viz.* from 29.3 to 30.2. For altho' in April 1751. the mercury ſtood at 29.1, I find, by a note in my diary, that ſome air having inſinuated itſelf into the tube, I judg'd the mercury to ſtand 3 tenths of an inch lower than it ought.

The greateſt thermometrical variation, during the ſaid time, has been 20°; *viz.* from 60° to 80°: But it may be obſerv'd, I never knew it riſe ſo high but once; occaſion'd by a very ſtrong léſte or levant wind; the extreme height, without ſuch an accident, being never more than 78°.

*N. B.* It may be neceſſary to adviſe, that my obſervations are made in the city of Funchal.

The

## The quantity of rain, which has fallen in the iſland of Madeira.

| *Anno* | 1751. | 1752. | 1753. |
|---|---|---|---|
| | Inch. Dec.Pts. | Inch. Dec.Pts. | Inch. Dec.Pts. |
| January | 5.614 | 11.452 | 5.374 |
| February | .867 | 4.496 | 2.912 |
| March | —— —— | .189 | 4.679 |
| April | .011 | 2.479 | 1.604 |
| May | 1.59 | .399 | .038 |
| June | .022 | .860 | .284 |
| July | —— —— | .221 | .019 |
| Auguſt | —— —— | —— —— | —— —— |
| September | 3.176 | .03 | 1.37 |
| October | 1.707 | 9.897 | 2.352 |
| November | 3.509 | 5.37 | 1.967 |
| December | 10.483 | .308 | 2.974 |
| | 26.979 | 38.701 | 23.573 |

The quantity of rain, which has fallen the laſt ſeven years, from 1747. to 1753. incluſive, amounts to . . . . . . 214.346 inches.

Therefore the mean quantity for each year is . . . 30.62 +.

The mean quantity of water for each day of the ſaid ſeven years .083 +.

The number of days it rain'd in the ſaid ſeven years . . 462

The mean quantity of water for each of the days it rain'd . .503 +.

An account of the number of days, on which it rained, and of the greateſt quantity of water, which fell in any one day of the reſpective month; in inches and decimal parts.

| *Anno* | 1747. | | 1748. | | 1749. | | 1750. | | 1751. | | 1752. | | 1753. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Days. | Quantity of water. | Days. | Quantity of water. | Days. | Quantity of water. | Days. | Quantity of water. | Days. | Quantity of water. | Days. | Quantity of water. | Days. | Quantity of water. |
| January | 17 | 5.4 | 8 | 3.055 | 6 | .586 | 15 | 1.855 | 12 | 1.553 | 14 | 2.751 | 16 | .862 |
| February | 2 | .306 | 13 | 2.884 | 3 | .9 | 8 | .474 | 7 | .457 | 10 | 1.491 | 5 | 2.453 |
| March | 16 | 1.384 | 8 | 2.501 | 3 | .573 | 6 | .498 | — | — | 2 | .118 | 8 | 1.342 |
| April | 2 | .328 | 6 | .521 | 2 | .502 | 1 | .039 | 2 | .006 | 6 | .4 | 5 | .954 |
| May | 3 | .171 | — | — | 11 | 1.018 | 5 | .618 | 5 | .432 | 2 | .385 | 1 | .038 |
| June | 3 | .9 | 1 | .42 | 1 | .113 | 2 | .164 | 1 | .022 | 5 | .523 | 3 | .284 |
| July | 1 | .2 | — | — | — | — | 1 | .176 | | — | 1 | .221 | 1 | .019 |
| Auguſt | 2 | .01 | 3 | 1.475 | — | — | 1 | .003 | — | — | — | — | — | — |
| September | 4 | .327 | 1 | .81 | 4 | .32 | 6 | .434 | 3 | 1.5 | 1 | .03 | 8 | .742 |
| October | 1 | .01 | 7 | 1.415 | 12 | .387 | 13 | .2 | 9 | .425 | 16 | 2.438 | 10 | .657 |
| November | 9 | 1.151 | 4 | 1.283 | 7 | .912 | 10 | .942 | 11 | .749 | 13 | 1.031 | 4 | .959 |
| December | 3 | .925 | 2 | 1.5 | 14 | 1.5 | 6 | .055 | 15 | 2.45 | 3 | .257 | 10 | .725 |
| Total N of days | 63 | | 53 | | 63 | | 74 | | 65 | | 73 | | 71 | |